



04-25-06

AF/2824
2/10

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
In Re: Pat.Appn. Ser. No. 10/037,251 : Art Unit 2824
Filed 1/4/02 : Exr. L. Evanisko
Inventors Hougham et al. : Atty. Dkt. No. YOR920010020US1
For: MULTILAYER ARCHITECTURE FOR MICROCONTACT PRINTING STAMPS

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Commissioner for Patents
P.O. Box 1450
Alexandria, Va.22313-1450

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Reply Brief on Appeal 8 pages - 3 copies

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Respectfully submitted,

Alvin J. Riddles

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TRANSMITTAL LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, Va.22313-1450

Sir:

Transmitted herewith is a REPLY BRIEF in three copies, in response to the 2/24/06
EXAMINER'S ANSWER in the, under appeal, above identified application, wherein
prosecution has been reopened, grounds have been narrowed, new rejections have been made
and are addressed herewith in this reply brief.

Respectfully transmitted,

Alvin J. Riddles 4/24/06

Alvin J. Riddles

Reg.No. 17862



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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

REPLY BRIEF ON APPEAL

In view of examiner's withdrawal position in the 2/24/06 Answer (hereinafter Answer) the remaining items at issue are considered to be,

Claims 1 - 10 stand rejected under 35USC112 as being indefinite, with the exception that concern involving the terminology stiffness, flatness, porosity , adhesion enhancement and wettability enhancement, has been withdrawn;

Claims 1 - 5 and 7 - 9 stand rejected under 35USC102 as being anticipated by the Blee et al reference (US6,739,255); and,

Claims 6 and 10 stand rejected under 35USC103 as being unpatentable over the Blee reference 6,739,255 in view of the Kumar reference 5,512,131.

Considering the indefiniteness rejection of claims 1 - 10

Appellants consider the invention to be a tool structure or stamp that is useable in the established field or art of microcontact printing or ultrafine resilient stamping. In this art the stamp tool has a stamping surface and some resiliency. The tool is used in the precision transfer of monolayer quantities of etchant resistant or seed catalysis materials. In this art porosity and wettability are

properties useable to retain a material that is being transferred and to get a material being transferred to stick. Such properties are well known and discussed in the art.

The claims are of the ex parte Jepson type.

The supporting comments of the rejection on pages 6 - 8 of the Answer are in the form of extrinsic evidence ,opinion only, followed by a unilateral determination that the claims are indefinite which is considered to be insufficient under the law.

The subject of judicial construing of claim coverage has recently been addressed in Phillips v AWH Corp 415F3d1303, 75USPQ2d1321 (CAFC 2005), where, the full contribution of all elements of communication such as the specification, drawings, and other claims are required for a dispositive determination of claim coverage.

It is appellants' position that claim content and interpretation must be done, element for element using the intrinsic evidence of the entire content of the specification and drawings for support of any dispositive determination of indefiniteness.

In the following pages a claim for claim correlation is provided between the claim language, the drawings and the specification for all the claims involved.

| | | | |
|----|--|-------------------------|---------------------|
| 1. | 1. In microcontact printing wherein | Drawing | Specification |
| | an electronic circuitry pattern on the surface of an | Figs 1 - 3 | |
| | | Fig. 1 at A | Page 4 line7 |
| 2 | elastomeric stamp member is operable in a transfer | elements 10 - 13 | |
| | of a further processing responsive | | |
| 3 | material, to a surface of a substrate, | surface 11 substrate 12 | |
| 4 | the improvement comprising: | | |
| 5 | said elastomeric stamp member having a surface region | layer 13 | |
| | of a material imparting to said | | |
| 6 | stamp member at least one of the properties of | | Page 5 lines 1 - 11 |
| | adhesion and wettability enhancement | | |
| 7 | of the material of said circuitry pattern | | Page 6 lines 1 - 15 |
| | to said surface region, and, | | |
| 8 | said elastomeric stamp member further having | | |
| | at least one subsurface region, each said | | elements 21,23,24 |
| 9 | subsurface region being of a material imparting | | |
| | a particular physical property to said | | |
| 10 | stamp member. | | |
| 1 | 2. The microcontact improvement of claim 1 wherein | | Page 6 lines 3 - 14 |
| | said at least one subsurface | | |
| 2 | region, is a single region that imparts the bulk property of stiffness | | |
| | to said stamp | | |
| 3 | member. | | |

| | Drawing | Specification |
|--|------------|---------------------|
| 1 3. The microcontact improvement of claim 1 wherein | Figs 1 - 3 | |
| said at least one subsurface | layer 13 | |
| 2 region, is a single region that imparts the bulk property of | | Page 5 lines 1 -11 |
| wettability enhancement to said | | Page 6 lines 1 -15 |
| 3 stamp member. | | |
| 1 4. The microcontact printing improvement of claim 2 wherein | | |
| another region of said at | | |
| 2 least one subsurface regions, imparts the property of porosity, | | Page 5 lines 1 - 11 |
| and is positioned between | | |
| 3 said surface region and said stiffness bulk property imparting region. | | |
| 1 5. The microcontact printing improvement of claim 3 wherein | | |
| another region of said at | | |
| 2 least one subsurface regions, imparts the property of porosity, | | Pages 5 & 6 |
| and is positioned between | | |
| 3 said surface region and said wettability enhancement bulk property | | |
| imparting region. | | |
| 1 6 .The microcontact printing improvement of claim 2 wherein | | |
| said surface region is of the | | Pages 5 & 6 |
| 2 material known as Dow Corning Sylgard siloxane 184 | | |
| and said subsurface region is of | | |
| 3 the material known as Dow Corning Sylgard siloxane 186. | | |

| | | | |
|----|---|-------------------------|------------------------------------|
| 1 | 7. A microcontact printing stamp, | Drawing Figs 1 - 3 | Specification |
| 2 | comprising in combination : | Fig 2 | Page 7 line 7 to Page 8 line 15 |
| 3 | a body having at least a layer imparting | substrate 12 surface 11 | |
| | a bulk stiffness and flatness physical property on | | |
| 4 | which there is a stamping pattern supporting surface, | | |
| 5 | a stamping pattern layer positioned | pattern 10 | Page 7 lines 7 - 15 |
| | on said pattern supporting surface of said body, | | |
| 6 | said stamping pattern layer including | | |
| | a negative relief stamping pattern in which the | 10, 13 | |
| 7 | spaces between the features of said | | |
| | stamping pattern are the positive relief embossed | | |
| 8 | portions of the final printing stamp, | | |
| 9 | said stamping pattern layer further being | | |
| | of an electronic circuitry processable material | | |
| 10 | in which at least one of the physical | | Page 7 line 15 to Page 8 line 6 |
| | properties of adhesion enhancement and | | |
| 11 | wettability enhancement are imparted. | | |

| | | | |
|---|---|-----------------------|---------------|
| 1 | 8. The microcontact printing stamp member | Drawing Figs 1 - 3 | Specification |
| | of claim 7 including a further layer | Figs 1 & 2 | Pages 5 - 8 |
| 2 | of a specific physical property imparting material | | |
| | positioned between said stamping | | |
| 3 | pattern layer and said layer of bulk stiffness | | |
| | and wettability enhancement physical | | |
| 4 | property imparting material. | | |
| 1 | 9. The microcontact printing stamp member | Figs 1,2,3 | Pages 5 - 9 |
| | of claim 8 wherein said physical property | | |
| 2 | imparted by said layer of a specific physical property | | |
| | material is the physical | elements 14 & 25 | |
| 3 | property of porosity. | | |
| 1 | 10. The microcontact printing stamp of claim 7 wherein | Figs 1 - 3 | Pages 5 - 10 |
| | said layer of a bulk stiffness and | | |
| 2 | wettability enhancement physical property imparting material, | | |
| | is the material known as | | |
| 3 | Dow Corning Sylgard siloxane 186 and the material of said | | |
| | stamping pattern layer is of | | |
| 4 | the material known as Dow Corning Sylgard siloxane 184. | | |

Considering the Claims 1 - 5 and 7 - 9 rejection under 35USC102 as being anticipated by the Blee et al reference (US6,739,255).

It is submitted that the Blee reference bears only a superficial relevance to this invention. It is considered to be teaching only that physical channels may be used to carry printing liquid.

It is appellants' position that the criteria for anticipation are very precise, and fall under the rule that every limitation must be involved and that every limitation must be used in the same way.

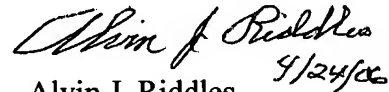
Appellants' claims are considered to distinguish by having superimposed layers in the stamp and thus the Blee reference does not teach a critical limitation.

Considering the 35USC103 rejection of claims 6 and 10 as being unpatentable over the Blee reference 6,739,255 in view of the Kumar reference 5,512,131.

It is submitted that the teaching of the two references does not add up to the invention. It is considered that the Blee channel liquid delivery to the stamp surface and the Kumar self assembled layer in the stamp does not teach appellants' invention of superimposed layers in a microcontact printing or ultrafine resilient stamping tool providing a stamping surface with some resiliency useful in the precision transfer of monolayer quantities of etchant resistant or seed catalysis materials. It is appellants' position that the general state of the art is that while stamp tools are available, the concept of having the advantages of superimposed property imparting layers in a stamp has not appeared heretofore.

It is respectfully urged that the claims are simple structure in this art, that they distinguish over the art yet they convey the novel concept and that concept can be practiced through the structural terminology used in the claims as they are.

Respectfully submitted,

A handwritten signature in cursive script that reads "Alvin J. Riddles".

Alvin J. Riddles

Reg. No. 17862

4/24/06